


*Morgan County Soil
and Water
Conservation District*

*90 S. Burke Street
Versailles, MO 65084
573-378-5822 ext. 101*

Soil Conservation News



The Staff and Supervisors of the Morgan County Soil and Water Conservation District and the Natural Resources Conservation Service all join together to wish each and everyone a Merry Christmas and a prosperous New Year.

COST-SHARE FUNDS AVAILABLE FOR LIVESTOCK EXCLUSIONS

Excluding your livestock from your pond or your woodlands are both approved cost-share practices through the Morgan County Soil and Water Conservation District.

Excluding livestock from the wooded areas is a good practice for a variety of reasons. Excluded areas will control erosion much more effectively because it provides cover to protect the soil. It will also maintain or improve water quality.

There are many long term benefits from maintaining a healthy stand of desirable trees.

The products harvested from woodlots across Missouri include saw logs, pulpwood, veneer logs, stave bolts, charcoal wood, poles and posts.

Not only are trees a valuable resource when they are harvested but also when they grow to maturity. Trees are natural air conditioners. An average acre of Missouri forest land uses 1,300 pounds of carbon dioxide and releases 900 pounds of oxygen annually. This acre will remove 11.5 tons of dust from the air.

Healthy, well managed trees are a valuable resource. They help control erosion and contribute to clean and healthy living. If you would like more information on programs that cost-share on livestock exclusion please call our office at 573-378-5822 ext. 101.

HELP WANTED

Conservation minded people needed to serve on the Board of Supervisors

The Morgan County Soil and Water Conservation District will be holding an election for District Supervisors at the Annual Meeting in March. The Board of Supervisors meets on the 2nd Wednesday of each month at 8:00 AM. The supervisors over see the state cost-share program and work with a budget of approximately \$150,000 each year. Candidates are needed for Area I which covers T45-R18 and 19 and T44-R18 and 19 and for Area III which covers T42-R18 and 19, T41, R18 and 19 and T40- R18 and 19. A candidate for Supervisor needs to be a resident of Morgan County for two years and live on or own land in the area they are representing. A candidate must also be a person who is actively engaged in farming and practicing conservation practices related to agriculture. If you are interested in having your name placed on the ballot or have any questions please call the district office at 573-378-5822 ext. 101.



MANURE STORAGE SAFETY

Safety must be a primary consideration in managing animal waste. It must be considered during planning, siting and designing of agricultural waste management system (AWMS) components, as well as during the actual operation of handling wastes. The operator must be made aware of safety aspects of any waste management system and the AWMS components under consideration. The potential for an accident with waste management components is always present.

On September 17, 2012, two young boys temporarily lost consciousness while riding their tricycles near an open manure storage tank that was being agitated for pump out. The investigation into this event is ongoing. Additional research needs to be conducted on the use of gypsum for bedding. The additional sulfur may have increased the production of hydrogen sulfide in this environment. Extra caution and awareness is necessary to dairy operations that are using this type of bedding material.

A variety of gases can be generated in the operation of AWMS that can cause asphyxiation, poisoning, and explosions. Manure gases can accumulate when manure is stored in environments that do not have adequate ventilation, such as underground covered waste storage tanks. Waste storage facilities and lagoons placed in open environments also store and release gases, especially during agitation. These gases can reach toxic concentrations and displace oxygen. The four main gases are ammonia (NH₃), carbon dioxide (CO₂), hydrogen sulfide (H₂S), and methane (CH₄).

Hydrogen sulfide is a deadly gas. Hydrogen sulfide is the most dangerous of the manure gases and cause discomfort, headaches, nausea, and dizziness. At levels above 200 ppm, collapse, coma and death due to respiratory failure can occur within seconds after only a few inhalations (<http://www.safetydirectory.com/hazardous substances/hydrogen sulfide/fact sheet.htm>). Humans and farm animals have been killed by this gas after falling into or entering a manure tank in close proximity of a manure storage facility during agitation. Although only small amounts of H₂S are produced in a manure tank compared to the other major gases, this gas is heavier than air and becomes more concentrated in tank space over time.

Hydrogen sulfide is produced by anaerobic decomposition of organic wastes. It has the distinct odor of rotten eggs at low concentrations, but cannot be detected at higher concentrations because it overpowers the sense of smell. Hydrogen sulfide deadens the olfactory nerves (sense of smell); therefore, if the smell of rotten eggs appears to have disappeared, this does not indicate that the area is not still contaminated with this highly poisonous gas.

Agitation of liquid wastes to facilitate transfer and other waste management functions is common practice in an AWMS. When liquid waste storage facilities are agitated in preparation for pump out, higher concentrations of H₂S can be released. As H₂S is heavier than air, it will build up in the area overhead of the mixing activities and may drift downward adjacent to the storage tank. This activity may release large quantities of noxious gases and create dangerous and possible lethal conditions even with maximum air ventilation.

Because of the potential danger of gases around manure storage facilities, ponds, or lagoons; first aid equipment should be supplied nearby. An identified, easily accessible area should be provided for storing safety equipment. The area should be inspected periodically to ensure that all equipment is available and in proper working condition. An emergency action plan, including telephone numbers of the local fire department and/or rescue squad should be posted near the safety equipment and near all telephones.

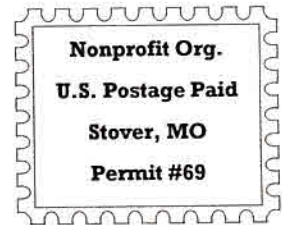
Safety hazards are inherent to AWMS. Several actions and precautions to be taken when dealing with manure storage facilities include but are not limited to:

- Safety equipment can include air packs, nylon line with snap buckles, safety harness, first-aid kits, flotation devices, safety signs, and hazardous atmosphere testing kits or monitors. All family member and employees should be trained in first-aid, CPR techniques, and safety procedures and policies.

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Manure Storage Safety, Cont.

* Do not enter a manure pit unless absolutely necessary and only then if the pit is first ventilated, air is supplied to a mask or a self contained breathing apparatus, a safety harness and attached rope is put on, there two people standing by.

* Do no attempt without assistance to rescue humans or livestock that have fallen into a manure storage structure or reception pit. For open storage facilities, put a fence around it and post "Keep Out" signs.

* Signs should be prominently posted and maintained that warn of the hazard. Children and those that cannot read must be given special instruction to assure they are aware of the hazard.

* To minimize hazards, agitation of manure is best done on windy days.

* Impoundment type facilities present a drowning hazard. Crusts that are formed on the surface and slime formation make waste impoundments more hazardous. Crusts have the appearance that they would support a person's weight; however, they often will not.

Everyone working around or near manure storage facilities must understand the health hazards that exist, including symptoms and effects from the gases produced. During pump out operations, ensure non-essential workers or bystanders are away from the manure storage facility.



You are invited to our Customer Appreciation Open House

Hosted by the

Morgan County Soil and Water Conservation District

And the

Natural Resources Conservation Service

December 11th, from 11 a.m. to 1 p.m.

USDA Service Center—100 S. Burke Street—Versailles, MO

Chili and holiday refreshments will be served. There will be a drawing for door prizes. You do not need to be present to win. To enter for the door prizes we are asking that you bring a non perishable food item to be donated to a local food pantry.



FY 2014 EQIP

A sign up period for the FY 2014 Environmental Quality Incentive Program (EQIP) is planned to be completed by February 14, 2014. EQIP provides incentive payments for the completion of a wide range and types of Conservation Practices including Managed Grazing, Woodland Exclusion, Animal Waste Storage and Management, High Tunnels, and Erosion Control. Interested landowners may apply any time by completing an application at the local NRCS/SWCD office. EQIP allows for the completion of practices scheduled over multiple years. Applications for this program are ranked according to criteria established at the National, State and Local levels thus funding is NOT on a first come first served basis. Each year landowners in Morgan and adjoining counties have applications funded for a variety of Conservation Practices. Questions concerning this program can be directed to your local NRCS/SWCD office.

